

Conducting User Guide Documentation Asset Information System Of Education And Culture Department Chapter Sidoarjo District

(A Standardized User Guide Documentation Based On IEEE 1063-2001)

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Abstract— In 2017, the procurement process was transferred to the District Sidoarjo Development Planning Department (BAPPEDA) entirely. The Information System Of Education And Culture Department Chapter Sidoarjo District (DIKBUD) did not have user guide documentation and there was no special team to handle the user guide documentation project. Whereas the information system must be operated immediately for the needs of offices and the other department in Education And Culture Department Chapter Sidoarjo District (DIKBUD) and demands from the community such as the high interest of the community to hold an event or meeting in the rooms owned by the local government, especially those of Education And Culture Department Chapter Sidoarjo District (DIKBUD) Office. This research aims to conduct user guide documentation for Education And Culture Department Chapter Sidoarjo District (DIKBUD), considering the importance of user guide documentation because the majority of users are not from IT science. The method used in the preparation is the IEEE 1063-2001 standard. The results obtained are a user guide documentation of the Sidoarjo DIKBUD Asset Information System with 9 clauses meeting the requirements, namely the IEEE 1063-2001 standard and 6 clauses not applying the IEEE 1063-2001 standard requirements.

Keywords-component; IEEE 1063-2001 standard, room assets, standardization.

I. INTRODUCTION

Information technology is increasingly becoming a specialty in every organization. Information technology has even dominated almost all sectors ranging from offices, government, and education [1]. This situation occurs due to the high awareness that the use of information technology is not only as a means of support but also as an infrastructure towards the strategic organization now, but what happens if the operation of an application that is built cannot take place properly due to the absence of user guidance documentation.

In 2017, the procurement process was transferred to the District Sidoarjo Development Planning Department (BAPPEDA) entirely. And at the same time, the Sidoarjo Education and Culture Department develops an asset information system. The intended assets are meeting rooms or buildings that owned by the Sidoarjo Education and Culture

Department along with UPTD (Regional Technical Implementing Units) including buildings and halls scattered in public schools and UPTD. These assets are used by office and public leases.

The asset information system in the Education And Culture Department Chapter Sidoarjo District (DIKBUD) does not have user guide documentation and no team specifically handles the procurement of the user guide documentation. Whereas the information system must be immediately operated for the needs of offices in the Education And Culture Department Chapter Sidoarjo District (DIKBUD) and demands from the community such as the high interest of the community to hold a celebration or meeting in rooms owned by the local government especially those of the Education And Culture Department Chapter Sidoarjo District (DIKBUD).

II. EASE OF USE

A. Asset Information System

Documentation is a technical guide or called as JUKNIS [2]. In terms of software engineering known as a user manual or user guide. Asset information system in this case is one of application support in Education And Culture Department Chapter Sidoarjo District (DIKBUD) . This system manages all use and rent the room asset of Education And Culture Department Chapter Sidoarjo District (DIKBUD).

B. User Guide Documentation

Documentation is a technical guide or called as JUKNIS [2]. In terms of software engineering known as a user manual or user guide. This document contains instructions for the operation of a device [3]. Whereas in his book Roger Pressman said that this documentation or user manual must be in the software requirement specification template [4].

Many people don't understand enough how to use an application. Even sometimes it is still difficult to use applications by users who are not too familiar with technological developments. It causes the features provided by the application that made are not in accordance with consumer demand. After being explored further, it not an application that needs to be fixed, only the documentation of the features and functions of

the application needs to be revised [3]. This is a problem because it has an impact on the efficiency of the time and energy of the parties associated with the development of the software.

C. IEEE Standard 1063-2001

IEEE 1063-2001 is a standard from IEEE (Institute of Electrical and Electronics Engineers) which is an international standardization for software documentation. This standard is used for documentation and has proven to have contributed to improving the quality of documentation [5]. The factors that make the motivation for the initial development of this standard are as follows:

- a. System user's concerns about the quality of documentation because often the system is almost perfect but the technical instructions not informative enough.
- b. Requirements for the system procurement. This standard provides minimum requirements for structure, information content, and documentation user format.

This standard is limited to software documentation products and does not cover software development or management processes and documentation. This standard aims to create consistent, complete, accurate and usable documentation. Some terms and definitions are discussed in clause 2 to equate perception. Here are some definitions in IEEE 1063-2001:

Table I Definitions in IEEE 1063-2001 [5]

Clauses	Term	Definition
2.1	Action	Element of a step that a user performs to complete a procedure.
2.2	Caution	Advisory in software user documentation that performing some action may lead to consequences that are unwanted or undefined, such as loss of data or an equipment problem.
2.3	Critical Information	Information on the safe use of the software, the security of the information created with the software, or the privacy of the information created by or stored with the software.
2.4	Document Set	A collection of documentation that has been segmented into separately identified volumes or products for ease of distribution or use.
2.5	Illustration	Graphic element set apart from the main body of text and normally cited within the main text. In this standard, the term is used as the generic term for tables, figures, exhibits, screen captures, flow charts, diagrams, drawings, icons, and other graphic elements.
2.6	Intructional Mode	Usage mode that is intended to teach the use of software in performing tasks.
2.7	Note	Helpful hint(s) and other information that may assist the user by emphasizing or supplementing important points of the main text.
2.8	Procedure	Ordered series of steps that a user follows to do one or more tasks.
2.9	Reference Mode	Usage mode that is intended to provide quick access to specific information for software users who are generally familiar with the software functions.

2.10	Software Product	One or more computer programs together with any accompanying ancillary nonelectronic, non-mechanical Items such as documentation and worksheets, delivered under a single name for use by others.
2.11	Software User Documentation	Electronic or printed body of material that provides information to users of software.
2.12	Step	One element of a procedure. A step contains one or more actions.
2.13	Style	Set of editorial conventions covering grammar, terminology, punctuation, capitalization, and layout of a software user document.
2.14	Tutorial	Instructional procedure in which the user exercises software functions using sample data supplied with the software or documentation.
2.15	Usage Mode	Primary manner in which the document issuer expects the document to be used. This standard recognizes two usage modes: instructional and reference.
2.16	User	Person who employs software to perform a task.
2.17	Warning	Advisory in software user documentation that performing some action may lead to serious or dangerous consequences.

III. METHODOLOGY

In the conducting of this asset information system user guide documentation research, there are 3 processes initiated from asset information system project in Education And Culture Department Chapter Sidoarjo District. The following methodology is used:

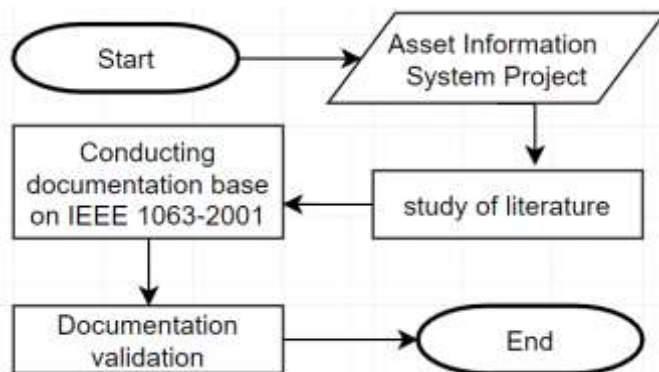


Figure 1 Research Methodology

IV. DISCUSSION

In this chapter, will be discussed how to complete this research with the methodology that was mentioned above. Below mentioned about 3 processes that already had clearly:

A. Study of Literature

The literature study conducted in this study is by understanding the workflow of its asset information system. Need to know the actor and the features in this system. Then look for suitable standards implemented in this case, and the results obtained are IEEE 1063-2001.

B. Conducting Documentation Based On IEEE 1063-2001

After knowing the information system's flow in the previous methodology process, then the researcher notes the important points of the asset information system workflow. Then the researcher made a draft user guide documentation. This is done so that the draft produced is more informative. And it must be noted what IEEE 1063-2001 components have to included in the user guide documentation. The following are the components of technical documentation according to clauses carried out in the IEEE 1063-2001 standard:

Component	See subclause	Required?
Identification data (package label/title page)	4.3	Yes
Table of contents	5.7.1	Yes, in documents of more than eight pages after the identification data
List of illustration	5.7.2	Optional
Introduction	3.2	Yes
Information for use of the documentation	4.4	Yes
Concept of operations	4.5	Yes
Procedures	4.6, 4.7	Yes (instructional mode)
Information on software commands	4.8	Yes (reference mode)
Error messages and problem resolution	4.9	Yes
Glossary	4.10	Yes, if documentation contains unfamiliar terms
Related information sources	4.11	Optional
Navigational features	5.8	Yes
Index	5.7.3	Yes, in documents of more than 40 pages
Search capability	5.7.4	Yes, in electronic documents

Figure II IEEE 1063-2001 Component [5]

The component column is a column that identifies the requested component or must be in a technical guide. The second column is showing a clause that demands the existence of the component. The rightmost column is a column that indicates whether the component must exist or is only optional. The following is an explanation of each component:

Table II Component Explanation [5]

Components	Clause	Implementation
Identification Data	4.3	Documentation shall contain unique identification data. The identification data shall include the following: a. Documentation title b. Documentation version and date published c. Software product and version d. Issuing organization
Table of Content	5.7.1	Table of contents that identifies the entire data, documents less than 8 pages
List of illustrations	5.7.2	Documentation should contain a list of tables, a list of figures, or a list of illustrations (including both tables and figures) if the document contains more than five numbered illustrations and the illustrations are not visible At the same time as text references to them. The list of illustrations shall list the illustration numbers and titles with an access point for each (such as its initial page number or an electronic link).
System Introduction	3.2	Introduction to the system being discussed.

Information for use of the documentation	4.4	Contains information on how the application is used, a list of notations used and versions of the documentation.
Concept of Operations	4.5	The conceptual operation of the system in the form of general theory, work method, flow diagram and algorithm.
Procedures	4.64.7	Order a series of steps that the user follows to perform one or more tasks.
Information on software commands	4.8	Information related to the commands in the software.
Error messages and problem resolution	4.9	Error messages and common problem handling.
Glossary	4.10	Documentation must include a glossary if there are many foreign terms that may be difficult for users to understand.
Related information	4.11	Information related to application resources, such as developer contacts, etc.
Sources Navigational Features	5.8	Navigation features include things like chapter and sub-chapter titles, page titles, chapter numbers, title numbers, and page numbers, page headings and footnotes, book page markers, cross references, navigation symbols, and buttons.
Index	5.7.3	Index is a list of keywords, images, or concepts that are sorted alphabetically by access points for each keyword.
Search Capability	5.7.4	If the documentation is electronic, the search feature must be provided

C. Documentation Validation

In the results of the research will be validated whether the documentation or technical guidelines are in accordance with IEEE 1063-2001. Validation have to be done to get a conclusion of the research, this is important to do so that can known how many clauses can be implemented and not. Here are the results of the validation checklist:

Table III Validation Checklist

Components	Clause	Implementation
Identification Data	4.3	a. There is a Title b. It says technical instructions as "PETUNJUK TEKNIS" c. Document version d. System name e. The organization that publishes
Table of Content	5.7.1	Table of contents
List of illustrations	5.7.2	a. List of images b. List of tables c. Numbers in each captured image of the layer
System Introduction	3.2	Chapter 1 point A
Information for use of the documentation	4.4	-
Concept of Operations Procedures	4.5	Flowhart of system workflow
Information on software commands	4.64.7	Instructions that describe each image
Error messages and problem resolution	4.8	-
Glossary	4.9	Chapter III
Related information	4.10	-
Sources Navigational Features	4.11	-
Features	5.8	a. Title

		b. Subtitles c. Red circle of placemark
Index	5.73	-
Search Capability	5.7.4	-

Based on the validation results above, it can be seen that there are only 9 clauses from the IEEE 1063-2001 standard in the making of this technical guide/user guide. One of them illustrates that there is one condition in making user guide documentation that meets 2 standards from or the other. And there are 6 clauses that have not been made in the conduction of this documentation. The following clause has not been applied in the conduction of this documentation:

1. Clause 4.4 Information for use of the documentation. The reason for not doing this class is:
 - a. There are no special notations that the reader must understand.
 - b. This documentation still has one version only.
2. Clause 4.8 Information on software commands. The reason for not doing this class is: This asset information system has been built with an interface graph because of it for everyone in the Education And Culture Department Chapter Sidoarjo District.
3. Clause 4.10 Glossary. The reason for not doing this class is: There are not many terms that require special understanding.
4. Clause 4.11 Related information sources. The reason for not doing this clause is: The system owner who is developed is the Education And Culture Department Chapter Sidoarjo District. So if there any criticisms or suggestions, it can be aspirated directly to the Education And Culture Department Chapter Sidoarjo District.
5. Clause 5.7.3 Index. The reason for not doing this class is No effect because there is no glossary.
6. Clause 5.7.4 Search capability. The reason for not doing this clause is: Because this documentation will be distributed in print / hard copy.

V. CONCLUSION

The conduction of documentation for the use of the system or documentation user guide or commonly called Juknis based on the IEEE 1063-2001 standard. However, there are only 9

clauses from the IEEE 1603-2001 standard that can be fulfilled in the making of technical guidelines/user guide information system assets of the Education And Culture Department Chapter Sidoarjo District, while 6 clauses have not yet been made in the making of this technical guidelines.

For the suggestion, the relevant things that can be done are refers to point design rules human computer interaction so that it is more informative or making documentation as a whole fulfilling the criteria clause from IEEE 1603-2001.

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